

<110> KUMIAI CHEMICAL INDUSTRY CO., LTD

<120> A gene coding for scytalone dehydratase having conferring  
resistance to an agricultural fungicidal agent

<130> PH-1735-PCT

<150> JP 2002-66955

<151> 2002-03-12

<160> 12

<170> PatentIn Ver. 2.1

<210> 1

<211> 516

<212> DNA

<213> Pyricularia oryzae

<220>

<221> CDS

<222> (1).. (516)

<400> 1

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15

ctg ggc ctc atg act tgc gtc tat gag tgg gca gac agc tac gac tcc	96
Leu Gly Leu Met Thr Cys Val Tyr Glu Trp Ala Asp Ser Tyr Asp Ser	
20 25 30	
aag gac tgg gat agg ctg cga aag gtc att gcg cct act ctg cgc att	144
Lys Asp Trp Asp Arg Leu Arg Lys Val Ile Ala Pro Thr Leu Arg Ile	
35 40 45	
gac tac cgc tcc ttc ctc gac aag ctc tgg gag gca atg ccg gcc gag	192
Asp Tyr Arg Ser Phe Leu Asp Lys Leu Trp Glu Ala Met Pro Ala Glu	
50 55 60	
gag ttc gtc ggc atg gtc tcg agc aag cag atg ctg ggc gac ccc acc	240
Glu Phe Val Gly Met Val Ser Ser Lys Gln Met Leu Gly Asp Pro Thr	
65 70 75 80	
ctc cgc acg cag cac ttc atc ggc ggc acg cgc tgg gag aag gtg tcc	288
Leu Arg Thr Gln His Phe Ile Gly Gly Thr Arg Trp Glu Lys Val Ser	
85 90 95	
gag gac gag gtc atc ggc tac cac cag ctg cgc gtc ccg cac cag agg	336
Glu Asp Glu Val Ile Gly Tyr His Gln Leu Arg Val Pro His Gln Arg	
100 105 110	
tac aag gac acc acc atg aag gag gtc acc atg aag ggc cac gcc cac	384
Tyr Lys Asp Thr Thr Met Lys Glu Val Thr Met Lys Gly His Ala His	
115 120 125	

tcg gca aac ctt cac tgg tac aag aag atc gac ggc gtc tgg aag ttc 432  
 Ser Ala Asn Leu His Trp Tyr Lys Lys Ile Asp Gly Val Trp Lys Phe  
 130 135 140

gcc ggc ctc aag ccc gat atc cgc tgg ggc gag ttc gac ttt gac agg 480  
 Ala Gly Leu Lys Pro Asp Ile Arg Trp Gly Glu Phe Asp Phe Asp Arg  
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<210> 2

<211> 172

<212> PRT

<213> *Pyricularia oryzae*

<400> 2

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 20 25 30

Lys Asp Trp Asp Arg Leu Arg Lys Val Ile Ala Pro Thr Leu Arg Ile  
 35 40 45

Asp Tyr Arg Ser Phe Leu Asp Lys Leu Trp Glu Ala Met Pro Ala Glu  
 3/11

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Glu Phe Val Gly Met Val Ser Ser Lys Gln Met Leu Gly Asp Pro Thr			
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Leu Arg Thr Gln His Phe Ile Gly Gly Thr Arg Trp Glu Lys Val Ser			
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Glu Asp Glu Val Ile Gly Tyr His Gln Leu Arg Val Pro His Gln Arg			
100	105	110	
Tyr Lys Asp Thr Thr Met Lys Glu Val Thr Met Lys Gly His Ala His			
115	120	125	
Ser Ala Asn Leu His Trp Tyr Lys Lys Ile Asp Gly Val Trp Lys Phe			
130	135	140	
Ala Gly Leu Lys Pro Asp Ile Arg Trp Gly Glu Phe Asp Phe Asp Arg			
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Ile Phe Glu Asp Gly Arg Glu Thr Phe Gly Asp Lys			
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<210> 3

<211> 516

<212> DNA

<213> *Pyricularia oryzae*

<220>

<221> CDS

<222> (1).. (516)

<400> 3

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Met Gly Ser Gln Val Gln Lys Ser Asp Glu Ile Thr Phe Ser Asp Tyr	
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ctg ggc ctc atg act tgc gtc tat gag tgg gca gac agc tac gac tcc	96
Leu Gly Leu Met Thr Cys Val Tyr Glu Trp Ala Asp Ser Tyr Asp Ser	
20 25 30	

aag gac tgg gat agg ctg cga aag gtc att gcg cct act ctg cgc att	144
Lys Asp Trp Asp Arg Leu Arg Lys Val Ile Ala Pro Thr Leu Arg Ile	
35 40 45	

gac tac cgc tcc ttc ctc gac aag ctc tgg gag gca atg ccg gcc gag	192
Asp Tyr Arg Ser Phe Leu Asp Lys Leu Trp Glu Ala Met Pro Ala Glu	
50 55 60	

gag ttc gtc ggc atg gtc tcg agc aag cag gtg ctg ggc gac ccc acc	240
Glu Phe Val Gly Met Val Ser Ser Lys Gln Val Leu Gly Asp Pro Thr	
65 70 75 80	

ctc cgc acg cag cac ttc atc ggc ggc acg cgc tgg gag aag gtg tcc	288
Leu Arg Thr Gln His Phe Ile Gly Gly Thr Arg Trp Glu Lys Val Ser	
85 90 95	

gag gac gag gtc atc ggc tac cac cag ctg cgc gtc ccg cac cag agg 336  
 Glu Asp Glu Val Ile Gly Tyr His Gln Leu Arg Val Pro His Gln Arg

100

105

110

tac aag gac acc acc atg aag gag gtc acc atg aag ggc cac gcc cac 384  
 Tyr Lys Asp Thr Thr Met Lys Glu Val Thr Met Lys Gly His Ala His

115

120

125

tcg gca aac ctt cac tgg tac aag aag atc gac ggc gtc tgg aag ttc 432  
 Ser Ala Asn Leu His Trp Tyr Lys Lys Ile Asp Gly Val Trp Lys Phe

130

135

140

gcc ggc ctc aag ccc gat atc cgc tgg ggc gag ttc gac ttt gac agg 480  
 Ala Gly Leu Lys Pro Asp Ile Arg Trp Gly Glu Phe Asp Phe Asp Arg

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155

160

atc ttt gag gac gga cgg gag acc ttt ggc gac aaa 516  
 Ile Phe Glu Asp Gly Arg Glu Thr Phe Gly Asp Lys

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170

<210> 4

<211> 172

<212> PRT

<213> *Pyricularia oryzae*

<400> 4

Met Gly Ser Gln Val Gln Lys Ser Asp Glu Ile Thr Phe Ser Asp Tyr

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Leu Gly Leu Met Thr Cys Val Tyr Glu Trp Ala Asp Ser Tyr Asp Ser			
20	25	30	
Lys Asp Trp Asp Arg Leu Arg Lys Val Ile Ala Pro Thr Leu Arg Ile			
35	40	45	
Asp Tyr Arg Ser Phe Leu Asp Lys Leu Trp Glu Ala Met Pro Ala Glu			
50	55	60	
Glu Phe Val Gly Met Val Ser Ser Lys Gln Val Leu Gly Asp Pro Thr			
65	70	75	80
Leu Arg Thr Gln His Phe Ile Gly Gly Thr Arg Trp Glu Lys Val Ser			
85	90	95	
Glu Asp Glu Val Ile Gly Tyr His Gln Leu Arg Val Pro His Gln Arg			
100	105	110	
Tyr Lys Asp Thr Thr Met Lys Glu Val Thr Met Lys Gly His Ala His			
115	120	125	
Ser Ala Asn Leu His Trp Tyr Lys Lys Ile Asp Gly Val Trp Lys Phe			
130	135	140	
Ala Gly Leu Lys Pro Asp Ile Arg Trp Gly Glu Phe Asp Phe Asp Arg			
145	150	155	160

Ile Phe Glu Asp Gly Arg Glu Thr Phe Gly Asp Lys

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<210> 5

<211> 21

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer

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<210> 6

<211> 22

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer

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<210> 7

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer

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<210> 8

<211> 21

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer

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<210> 9

<211> 23

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer

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<210> 10

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer

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<210> 11

<211> 37

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer

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<210> 12

<211> 27

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer

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